

## CITY OF ALAMO HEIGHTS PLANNING AND DEVELOPMENT SERVICES DEPARTMENT

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# FLOODPLAIN DEVELOPMENT PERMIT APPLICATION (ORDINANCE NO. 1637)

\$1500.00 FEE REQ'D [Sec. 7-52(1)]	\$500.00 FEE REQ'D [Sec. 7-52(2)]	DATE:
ADDRESS OF PROPERTY:		***************************************
NAME OF APPLICANT:		Tel. No
MAILING ADDRESS:		
NATURE OF PROPOSED CONSTRUC Residential Non-Residential	TION:  New/Expansion Existing/Withir	n Footprint
DESCRIPTION OF WORK:		
ESTIMATED COST OF WORK: \$		
POINT OF CONTACT (If different than a	applicant):	
POINT OF CONTACT ADDRESS:		
CONTACT PHONE:	FAX:	
APPLICANT SHALL PROVIDE TWO	(2) SETS OF HALF-SCALE PLANS FOR DEVELOPMENT.	
	For Official City Use Only	
Are other permits/actions required? NO	YES WHICH?	
Meets requirements for Sec. 7-52(1):7-1137-114	7-4 7-32 7-33 7-53 7-	.71 7-72 7-74 7-75 7-111
Meets requirements for Sec. 7-52(2):	7-47-717-727-747-7	′5 <u>7-113</u> 7-114
APPROVED FOR CITY COUNCIL SUDATE:	JBMITTAL BY COMMUNTIY DEVELOP	MENT DIRECTOR: YES NO
APPLICATION RETURNED TO APPLIC	CANT DUE TO:	
	DING) PERMIT NO: DATE	
(Copy of Floodplain Development Perm	it to be filed in Building Permit file; Origina	al in FDP Master File)

NOTE: Work permitted by the Floodplain Development Permit must be started within six (6) months of the date of issuance, otherwise the permit shall become null and void. Work must be completed within three (3) years of issuance of permit.

Alamo Heights, Texas, Code of Ordinances >> PART II - CODE OF ORDINANCES >> <u>Chapter 7 - FLOOD DAMAGE PREVENTION AND CONTROL</u> >> <u>ARTICLE II. - ADMINISTRATION</u> >> <u>DIVISION 2. - DEVELOPMENT PERMIT</u> >>

#### **DIVISION 2. - DEVELOPMENT PERMIT**

Sec. 7-51. - Establishment.

Sec. 7-52. - Permit required.

Sec. 7-53. - Application.

Sec. 7-54. - Continuing obligations.

Secs. 7-55-7-70. - Reserved.

#### Sec. 7-51. - Establishment.

A floodplain development permit shall be required for all development in any area of special flood hazard as defined in this chapter to ensure conformance with the provisions of this chapter.

(Code 1965, App. B. Art. III, § C)

#### Sec. 7-52. - Permit required.

No structure or land in an area of special flood hazard shall hereinafter be located, altered, have its use changed or otherwise be developed unless a floodplain development permit has been issued pursuant to the terms of this chapter.

Requests for floodplain development permits for proposed development in the Flood Zone AE areas of the city shall be processed in accordance with the following requirements:

- (1) For new structures for which no footprint existed prior to the effective date of this section, or for the expansion of the footprint of structures existing prior to the effective date of this section, an application for a floodplain development permit shall comply with section 7-4, section 7-32, section 7-53, section 7-71, section 7-72, section 7-74, section 7-75, section 7-111, section 7-113 and section 7-114 as such sections may apply.
- For (i) interior remodeling of an existing structure; (ii) exterior remodeling of an existing structure that does not change the existing footprint, first floor elevation or elevation of the land; (iii) removal and replacement of an existing structure with a new structure of the same footprint, first floor elevation and location, or in an improved location, and no change in the elevation of the land; (iv) replacement of multiple existing structures with one structure up to the aggregate footprint of the multiple structures and in keeping with (iii) above; or (v) replacement of an existing structure or structures such that they are elevated on columns or pilings such that the lowest horizontal structural elements are at or above the base flood elevation and the elevation of the land is not changed, and in keeping with (iii) above, an application for a floodplain development permit shall comply with section 7-4, section 7-71, section 7-72, section 7-74, section 7-75, section 7-113 and section 7-114 as such sections may apply. Further, work allowed under subsection (2) must present the least possible resistance to the flow of the base flood, which can be accomplished by orientation of the structure, minimal structural elements, and other design features.

Work permitted hereunder must be started within six (6) months of the date of approval of the required floodplain development permit, otherwise the permit shall become null and void.

(Code 1965, App. B. Art. III, § D; Ord. No. 1637, 5-8-06; Ord. No. 1861, 4-12-10)

## Sec. 7-53. - Application.

(a) Application for a floodplain development permit shall be presented to the city engineer, on forms furnished by him, prior to any proposed cut and/or fill or building. Application for a floodplain development permit for a proposed subdivision may be presented prior to or in conjunction with other data required for the platting process. For platting purposes, a floodplain development permit shall

serve only as an approval of the floodplain chapter requirements. No cut and/or fill, building or other site alterations shall proceed until the permit is approved. The permit application shall be accompanied by supporting hydrology and hydraulic data prepared by a registered professional civil engineer, in accordance with the forms article of this chapter. It may also include, but not be limited to, plans in duplicate drawn to scale showing the locations, dimensions and elevations of proposed structures, and the location of the foregoing in relation to areas of special flood hazard. See section 7-114 for supplementary application floodplain development permit for building or structure in the flood hazard area. Additionally, the following information is required:

- Elevation, in relation to mean sea level, of the lowest floor (including basement) of all proposed structures:
- Elevation, in relation to mean sea level, to which any nonresidential structure shall be (2) floodproofed;
- Certification from a registered professional civil engineer or registered architect that the (3) nonresidential floodproofed structure shall meet the floodproofing criteria of section 7-72(2);
- Certification of the fair market value of an existing structure, prepared by a certified real estate (4) appraiser, and a cost estimate of proposed improvements to such structure, prepared by a registered architect or registered professional engineer, shall be submitted to verify whether or not the proposed improvements exceed fifty (50) percent of the fair market value of the existing structure. In the case of a structure that has suffered damage, the data will verify the fair market value of the structure before the damage occurred;
- Description by a registered professional civil engineer of the extent to which any watercourse or (5) natural drainage will be altered or relocated as a result of proposed development.
- Permit review fee in the amount of one thousand five hundred dollars (\$1,500.00) to cover the (6) cost for the city to secure from its floodplain consultant a review of the applicant's permit application, and for the cost of processing the permit application.
- Approval or denial of a floodplain development permit by the city engineer shall be based on all of the (b) provisions of this chapter and the following relevant factors outlined below. A permit shall be denied if any factor is not satisfactorily addressed.
  - The danger to life and property due to flooding or erosion damage; velocities in excess of six (6) fps shall be considered erosive, and the product of the velocity times the depth of flow in excess of that shown as within the "safe range" by section 7-112 shall be considered dangerous. Mitigating measures shall be addressed;
  - (2) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - The danger that materials may be swept onto other lands to the injury of others; materials to be (3) stored in special flood hazard areas shall be properly restrained by anchorage or restraints so that flotation and displacement will not occur during the inundation period;
  - Access to the property elevated to or above the elevation of the flood of record for ordinary and (4) emergency vehicles must be provided for new construction and proposed subdivisions;
  - (5) The cost of providing governmental services during and after flooding conditions;
  - The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the sites, shall be analyzed as delineated in section 7-111
  - The availability of alternative locations, not subject to flooding or erosion damage, for the (7) proposed use;
  - The relationship of the proposed use to the comprehensive plan for that area with respect to the (8) dedication of additional drainage easement, in accordance with the existing subdivision regulations.
- (c) All proposed drainage improvements to be made within the limits of the areas of special flood hazard as set forth in section 7-6 shall require a performance bond which shall be filed with the city engineer after the approval of the floodplain development permit. For improvements being made in a subdivision under the requirements:
  - A performance bond will be executed by a surety company, licensed to do business in the state (1) in an amount equal to the cost estimate, such cost estimate to include an inflation factor based upon a locally recognized construction cost index, as approved by the city engineer, of all uncompleted and unaccepted improvements required by this chapter; with the condition that the developer shall complete such improvements and have them approved by the city engineer within three (3) years from the date of approval of the floodplain development permit;
  - The performance bond shall be substantially in the same form as the bond instrument set out in (2) section 7-113 of this chapter. The city engineer is authorized to sign the bond instrument on behalf of the city and the city attorney shall approve the same as to form.
- (d) If a floodplain development permit application is disapproved, the city engineer shall notify the applicant in writing of the section and specific requirement of the floodplain chapter within which the proposed development does not comply and the nature of such noncompliance.

(Code 1965, App. B. Art. IV, § C; Ord. No. 1563, 9-13-04)

## Sec. 7-54. - Continuing obligations.

It shall be unlawful to develop any property within an area of special flood hazard, except in accordance with the terms of a floodplain development permit. Drawings and other material or criteria, submitted to the city engineer in applying for such permit, shall, upon approval and issuance of such a permit, be a part of a condition and term of such permit. In addition, all standards and requirements of this chapter and all factors listed herein as relevant in approving or denying such permit shall be a part of such a permit and a condition and term of such a permit. In addition to named materials required to be submitted in applying for such a permit, the city engineer may require additional submission in order to verify whether such a permit should be issued. The conditions and terms shall constitute a continuing obligation upon all future occupants or users of the land, to the extent the same are applicable after development has been completed.

(Code 1965, App. B, Art. VI, § C)

Secs. 7-55-7-70. - Reserved.

Alamo Heights, Texas, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 7 - FLOOD DAMAGE PREVENTION AND CONTROL >> ARTICLE III. - PROVISIONS FOR FLOOD HAZARD REDUCTION >>

## **ARTICLE III. - PROVISIONS FOR FLOOD HAZARD REDUCTION**

Sec. 7-71. - General standards.

Sec. 7-72. - Specific standards.

Sec. 7-73. - Standards for subdivision proposals.

Sec. 7-74. - Standards for areas of shallow flooding (AO/AH zones).

Sec. 7-75. - Floodways.

Secs. 7-76—7-90. - Reserved.

#### Sec. 7-71. - General standards.

In all areas of special flood hazards, the following provisions are required for all new construction and substantial improvements:

- (1) All new construction or substantial improvements shall be designed or modified and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- (2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;
- (4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
- (5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
- (6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters;
- (7) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding;
- (8) Filling or the disposal of any materials, which will diminish the water flow capacity of any waterway or floodplain defined by this chapter, must be compensated for with remedial action by additional excavation or otherwise so as not to diminish water capacity; and
- (9) Floodplain engineering and procedures requirements within FEMA or the U.S. Corps of Engineers official flood-prone areas shall conform to the engineering criteria as set out in section 7-111

(Code 1965, App. B, Art. V, § A)

### Sec. 7-72. - Specific standards.

In all areas of special flood hazards where base flood elevation data have been provided as set forth in section 7-6, section 7-32(7) or section 7-73(c), the following provisions are required:

- (1) Residential construction: New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one (1) foot above the base flood elevation. A registered professional civil engineer, registered architect or registered public surveyor shall submit a certification to the city engineer that the standard of this section is satisfied. Floodproofing will not be allowed as a substitute for the lowest floor, including basement, being elevated one (1) foot above the base flood elevation.
- (2) Nonresidential construction: New construction or substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement)

elevated to or above the base flood level or, together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight, with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall develop or review structural design, specifications and plans for the construction and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification, which includes the specific elevation in relation to mean sea level to which such structures are floodproofed, shall be maintained by the floodplain administrator.

- Enclosures: New construction and substantial improvements, with fully enclosed areas below the (3) lowest floor that are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
  - A minimum of two (2) openings, having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding, shall be provided;
  - b. The bottoms of all openings shall be no higher than one (1) foot above grade;
  - Openings may be equipped with screens, louvers, valves or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.
- (4) Manufactured homes:
  - In accordance with the zoning chapter, modular and manufactured housing is not permitted to be constructed in the city.
  - b. If, in the future, construction of manufactured housing should be permitted, then the following provisions shall apply:
    - Require that all manufactured homes to be placed within Zone A shall be installed using methods and practices which minimize flood damage. For the purpose of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind
    - 2. All manufactured homes shall be in compliance with this section.
    - Require that all manufactured homes to be placed or substantially improved within Zones A1-30, AH and AE on the community's FIRM be elevated on a permanent foundation, such that the lowest floor of the manufactured home is at or above the base flood elevation, and be securely anchored to an adequately anchored foundation system, in accordance with the provision of paragraph (4) of this section.

(Code 1965, App. B, Art. V, § B)

## Sec. 7-73. - Standards for subdivision proposals.

- All subdivision proposals shall be consistent with sections 7-2, 7-3, and 7-4 of this chapter. (a)
- All proposals for the development of subdivisions shall meet the development permit requirements of (b) section 7-51, section 7-53, and the provisions of this article. No floodproofing of an existing or proposed building in a new subdivision will be allowed as a substitute for providing the proper finished fill elevation above the base flood or twenty-five-year ultimate development flood elevation, whichever is higher. Buildings in a proposed subdivision shall be on land that is above the controlling flood elevation.
- Base flood elevation data shall be provided for subdivision proposals and other proposed development, (c) if not otherwise provided, pursuant to section 7-6 or section 7-32(7) of this chapter and shall conform to section 7-114
- (d) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards and in accordance with the city subdivision regulations.
- All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed so that they will not affect the existing water surface elevations of the base flood or twenty-five-year ultimate development flood whichever is greater in the area of special
- (f) All proposed subdivisions must be contiguous to high ground that is not subject to flooding (the base flood or the twenty-five-year ultimate development flood, whichever is higher), i.e., no "island" will be considered for platting, unless adequate connecting structures, capable of passing the base flood or twenty-five-year ultimate development flood whichever is higher, are provided to high ground (not subject to the controlling flood of the same floodplain), and an additional one (1) foot of freeboard is provided to all minimum floor slab elevations.

(g)

All proposed subdivisions traversed by an area of special flood hazard, as defined in <u>section 7-6</u>, where the "buildable" portion of the subdivision is severed by the floodplain, shall be provided with adequate access. Adequate access shall be a structure that will pass the control flood (base flood or twenty-five-year ultimate development) without overtopping the structure or affecting the upstream property by backwater, and shall not be designed with excessive velocities.

- (h) Proposed subdivisions that involve the platting of streets shall have at least one (1) access to an unflooded portion of existing dedicated street or roadway.
- (i) Proposed subdivisions that involve the platting of streets shall have access to an existing dedicated street that is above the base flood or twenty-five-year ultimate development, whichever is greater.
- (j) Existing channels shall not be increased or decreased from their natural state, until engineering data as described in <u>section 7-111</u> have been approved by the city engineer. Floodplain engineering and procedures requirements for subdivisions within FEMA or U.S. Corps of Engineers official flood-prone areas shall conform to the engineering criteria as set out in <u>section 7-111</u>

(Code 1965, App. B, Art. V, § C)

#### Sec. 7-74. - Standards for areas of shallow flooding (AO/AH zones).

There are no specific areas within the city designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet, where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, should any areas ever be so designated, the following provisions shall apply:

- All new construction and substantial improvements of residential structures have the lowest floor including basement elevated above the highest adjacent grade, at least as high as the depth number specified in feet on the community's FIRM (at least two (2) feet if no depth number is specified).
- (2) All new construction and substantial improvements of nonresidential structures:
  - Have the lowest floor including basement elevated above the highest adjacent grade, at least as high as the depth number specified in feet on the community's FIRM (at least two (2) feet if no depth number is specified); or,
  - b. Together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight, with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- (3) A registered professional engineer or architect shall submit a certification to the floodplain administrator that the standards of section 7-53 are satisfied.
- (4) Require within Zone AH or AO adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

(Code 1965, App. B. Art. V. § D)

#### Sec. 7-75. - Floodways.

Located within the areas of special flood hazard established in <u>section 7-6</u> are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potentials, the following provisions shall apply:

- (1) Encroachments are prohibited, including fill, new construction, substantial improvements and other development, unless certification by a professional registered engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- (2) If the preceding paragraph is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this article.

(Code 1965, App. B. Art. V, § E)

Secs. 7-76—7-90. - Reserved.